

**REMARKS**

Claims 1-64 are currently pending in this Application, with claim 1 being in independent format. Claims 2-4, 6-13, 18, 42-64 have been withdrawn. Claims 1, 5, 14-17, and 19-41 stand rejected. Claim 1 has been amended.

In response to the final Office Action dated January 17, 2008, Applicants respectfully request that the Examiner amend the present application in the manner set forth in this Amendment and favorably consider the following remarks. Applicants submit that this Amendment After Final Rejection places this application in condition for allowance by amending the claims in a manner that is believed to render all pending claims allowable over the cited art, and/or at least places this application in better form for appeal. In particular, independent claim 1 has been amended to recite an inherent viscosity (IV) range of from 0.05 to 0.13 dL/g. This amendment was not earlier presented because Applicants believed that the prior response(s) placed this application in condition for allowance, for at least the reasons discussed in those responses. The Examiner and Applicants' representative discussed this proposed amendment via telephone on May 27, 2008. During that phone conference, the Examiner indicated that this amendment would be entered if accompanied by a convincing line of reasoning why one of ordinary skill in the art would not have been lead to the claimed IV range, based upon the teachings of the prior art. Such argument and explanation is provided in detail below. Accordingly, entry of the present Amendment, as an earnest attempt to advance prosecution and/or to reduce the number of issues for appeal, is respectfully requested under 37 C.F.R. §1.116.

In the event that the Office declines to enter the present Amendment, and (i) any portion of the present Amendment would place some of the claims in better form for appeal if a separate paper were filed containing only such amendments or (ii) any proposed amendment to any claim would render that claim allowable, Applicants respectfully request that the Office inform Applicants of the same pursuant to MPEP § 714.13.

Turning to the Action, the Examiner continues to reject claims 1, 5, 14-17, and 19-41 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,668,273

to Allen et al. (hereinafter, Allen) or Published PCT Application No. WO 01/35709 to Obie (hereinafter, Obie).

In rejecting these claims, the Examiner acknowledges that Allen and Obie fail to anticipate Applicants' claimed inherent viscosity (IV) and molecular weight ( $M_n$  and  $M_w$ ) ranges because the IV,  $M_n$ , and  $M_w$  ranges disclosed in Allen and Obie do not touch or overlap the claimed ranges. However, the Examiner goes on to assert that the lower IV limit disclosed by Allen and Obie of 0.20 dL/g is close enough to the upper IV limit recited in the claims that one skilled in the art would have expected the compositions of Allen and Obie to have the same properties as the claimed composition. Therefore, according to the Examiner, a *prima facie* case of obviousness exists under the rationale set forth in *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ, 773 (Fed. Cir. 1985). Applicants maintain that the Examiner's reliance on Titanium Metals in this case is improper, for the reasons set forth in the last response.

However, in the interest of advancing prosecution, Applicants have amended independent claim 1 by narrowing the recited IV range. In particular, Applicants have narrowed the IV range in claim 1 from 0.05–0.15 dL/g to 0.05–0.13 dL/g. Support for this amendment can be found, for example, in the original claims 39 and 45. Applicants submit that independent claim 1 is not obvious in view of Allen or Obie, as one of ordinary skill in the art would not be motivated to modify Allen or Obie to decrease the IV to meet the claimed range of from 0.05 to 0.13 dL/g. Rather, the IV range disclosed in Allen is between 0.20 dL/g and 0.70 dL/g. Likewise, the IV range disclosed in Obie is between 0.20 and 1.7 dL/g. Thus, 0.20 dL/g is the **absolute lowest** IV of those disclosed these references, and one of ordinary skill in the art would not have been motivated to decrease the IV in either Allen or Obie below this lower limit. For example, the preferred range for the IV in Allen is above this lower limit at between 0.35 and 0.60 dL/g. (Col. 3, ll. 2-3). And the working examples in Obie use cellulose esters with IVs ranging from 0.5-0.7 dL/g to 1.02 dL/g. (Pages 16, 18). One of ordinary skill in the art would have understood the overall teachings of these references as guiding away from lowering the IV below the lowest disclosed limit of 0.20 dL/g, because **none** of the examples in the prior art ever actually use a cellulose ester having an IV that is even

close to that broadly disclosed lower limit. Applicants respectfully submit that the Examiner has ignored the entirety of the teachings of the prior art, and the information therein pertaining to the status and thinking in the art at the time of the invention. That is, when considered in this context, Allen and Obie actually guide one of ordinary skill in the art to go higher with the IV, and ***not lower***.

For example, Allen teaches that an increase in viscosity is beneficial in waterborne coatings, and provides superior compatibility. (Col. 2, ll. 53-62). Further, Allen teaches that a rapid viscosity build is useful for reducing runs and sags in waterborne spray applications. (Col. 6, ll. 24-26). Finally, Allen teaches that an increase in viscosity helps prevent sagging of the coating. (Col. 16, ll. 18-21). Obie incorporates by reference U.S. Patent No. 5,994,530 as an example of CMCAB esters for use in accordance with the claimed method. (P. 15, ll. 27-30). The '530 Patent teaches away from decreasing the inherent viscosity of these CMCAB esters. For example, the '530 Patent teaches that an exponential increase in viscosity in the CMCAB esters is beneficial for waterborne coatings and gives the CMCAB esters superior compatibility over conventional esters. (Col. 3, ll. 59-65). Further, the '530 Patent teaches that increased viscosity is also useful for reducing runs and sags in waterborne spray applications. (Col. 9, ll. 31-33).

These teachings are consistent with the general knowledge of those in art at the time of the invention. For example, as page 3 of the present application explains high viscosity has long been considered a hallmark of good performing, un-degraded cellulose esters for a wide variety of applications, including coatings. This is confirmed, for example, by U.S. Patent No. 1,683,347, lines 62-65, which is cited on page 3 of the present specification.

When read in their entirety, it is clear that Allen and Obie *only* discuss the benefits of *increased* viscosity, which would motivate one to *increase* IV,  $M_w$ , and  $M_n$  of the cellulose ester. Allen and Obie never suggest that lowering IV,  $M_w$ , or  $M_n$  would provide any benefits. Rather, when taken as a whole, the teachings of Allen and Obie along with the general knowledge available in the art, would actually discourage one

skilled in the art from attempting to lower the IV,  $M_w$ , and  $M_n$  of the cellulose esters described therein.

In summary, the Examiner has already acknowledged that Allen and Obie fail to teach or suggest at least three separate limitations of claim 1 (IV,  $M_w$ , and  $M_n$ ). Accordingly, Applicants submit that Allen and Obie cannot be said to teach the claimed invention. In addition, as explained above, Applicants submit that one of ordinary skill in the art would not have been prompted to modify these references to arrive at the claimed invention, because there is nothing in either reference, or in the knowledge of those skilled in the art generally, to provide such motivation. Therefore, the differences between the claimed invention and these references cannot be considered to have been obvious to one of ordinary skill in the art at the time of the invention, and the rejections based upon Allen and Obie should be withdrawn.

As a final matter, the Examiner argues that Applicants are relying on portions of each reference that “were not the basis of the rejection.” Page 5, ¶14. In addition, the Examiner states that the examples used by Applicants are irrelevant because the example from Allen “does not even meet the claimed DS values” and the example from Obie “does not even meet the claimed inherent viscosity.” *Id.* First, Applicants agree with these statements, because, as established in the last response, not a single embodiment in Allen meets the claimed DS values, and not a single embodiment in Obie meets the claimed inherent viscosity range. That is, the DS range disclosed in Allen is 2.55-3.02, while the IV range in Obie is 0.20-1.7 dL/g. Second, Applicants respectfully submit that Allen and Obie are relevant for all that they teach, and not just for the portions relied upon by the Examiner in the rejection. M.P.E.P. 2141.02. That is, the portions of Allen and Obie relied upon by Applicants in the last response are the *only* examples or embodiments in these references where data is provided about the properties of the disclosed compositions relevant to the rejection and the claimed invention (such as IV). It is important to note for the record that Applicants did not pick and choose favorable examples from these references, while failing to mention compositions that might be considered closer prior art. Rather, Applicants have relied on all of the examples in Allen and Obie where information about the disclosed

compositions' properties are provided. Applicants submit that this data is relevant to what these references, as a whole, would have taught to one of ordinary skill in the art at the time of the present invention. Thus, just because these sections are not the exact portions relied upon by the Examiner in the rejection, they are still relevant to establishing that these references teach or guide away from lowering the IV to meet the claimed range.

Throughout prosecution, the Examiner has yet to provide a single prior art reference suggesting the desirability of decreasing the IV in the prior art compositions to meet the claim limitations. Merely because references *can* be modified does not render the resultant modification obvious unless the prior art also suggests the desirability of the modification. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990) (emphasis in original). Accordingly, because nothing in the prior art would suggest the desirability of modifying the prior art compositions to meet the claimed IV range, Applicants respectfully submit that independent claim 1 is patentable over these references.

In light of the foregoing, Applicants submit that claims 1, 5, 14-17, and 19-41 are in condition for allowance. Further, since claim 1 is generic to all pending claims, Applicants request rejoinder of all withdrawn claims and allowance of claims 1-64.

Respectfully submitted,

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